MYCOTAXON

ISSN (print) 0093-4666 (online) 2154-8889 © 2016. Mycotaxon, Ltd.

April–June 2016—Volume 131, pp. 419–422

http://dx.doi.org/10.5248/131.419

Dictyoceratosporella wuzhishanensis sp. nov. from Hainan Province, China

Ji-Wen Xia, Chun-Ling Yang, Jin-Ye Wang,
Ying-Rui Ma, Jian-Mei Gao & Xiu-Guo Zhang*

Department of Plant Pathology, Shandong Agricultural University, Taian, 271018, China

*Correspondence to: *sdau613@163.com, zhxg@sdau.edu.cn*

Abstract—*Dictyoceratosporella wuzhishanensis* is described and illustrated as a new species, from dead stems of an unidentified broadleaf tree in Hainan Province, China. The fungus has single, unbranched conidiophores, each with an integrated monoblastic apical conidiogenous cell producing a dictyoseptate conidium with 2–4 rounded divergent lobes.

Key words—anamorphic fungi, conidial fungi, hyphomycetes, taxonomy

Introduction

Hainan Province (18°10′–20°10′N 108°37′–111°05′E) is an island in southern China. The annual mean temperature is 22–27°C, and the annual precipitation 1000–2600 mm. Wuzhishan National Nature Reserve, in central Hainan, has a typical tropical rainforest climate.

Among our fungal collections from Wuzhishan National Nature Reserve, we found a hyphomycetous specimen that conformed with *Dictyoceratosporella* Y.R. Ma et al.; it is described and illustrated here as a new species, *D. wuzhishanensis*.

Dictyoceratosporella wuzhishanensis J.W. Xia & X.G. Zhang, **sp. nov.** Figs 1, 2

MycoBank MB 817802

Differs from the two previously described *Dictyoceratosporella* species by its larger conidia with 2–4 shorter, wider lobes.

Type: China, Hainan Province: Wuzhishan, dead stems of unidentified broadleaf tree, 22 Apr. 2015, J.W. Xia (**Holotype**, HSAUP H6660; **isotype**, HMAS 245583).

Etymology: in reference to the type locality.

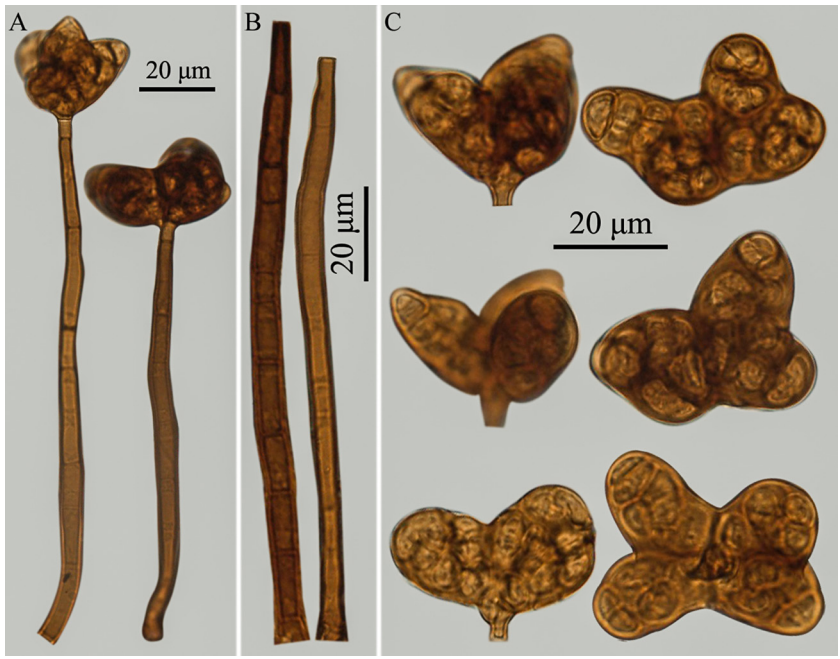

Fig. 1. *Dictyoceratosporella wuzhishanensis* (ex HSAUP H6660):
A. conidiophores, conidiogenous cells, and conidia; B. conidiophores; C. conidia.

Colonies on the natural substrate effuse, brown to dark brown, hairy. Mycelium superficial and partly immersed, composed of septate, pale brown, smooth hyphae, 1–2 µm wide. Conidiophores single, unbranched, erect, straight or slightly flexuous, cylindrical, smooth, thick-walled, brown to dark brown, 6–10-septate, 100–135 × 5–7 µm. Conidiogenous cell monoblastic, integrated, terminal, smooth, cylindrical, brown to dark brown, 15–25 × 3–4.5 µm. Conidial secession schizolytic. Conidia acrogenous, dictyoseptate, solitary, with 2–4 shortly rounded, divergent lobes, smooth, 25–35 µm long and 25–40 µm wide in the middle, rounded at the top; basal cell 3.5–6 × 2.5–3.5 µm, lobes 20–30 × 12–20 µm, with 2–6 transverse septa and 1–3 longitudinal septa.

Comments – The genus *Dictyoceratosporella* was established by Ma et al. (2016) with two species: *D. cordata* Y.R. Ma & X.G. Zhang (type) and *D. limushanensis* Y.R. Ma & X.G. Zhang. It has single, stout, unbranched conidiophores with an integrated apical monoblastic conidiogenous cell producing a dictyoseptate

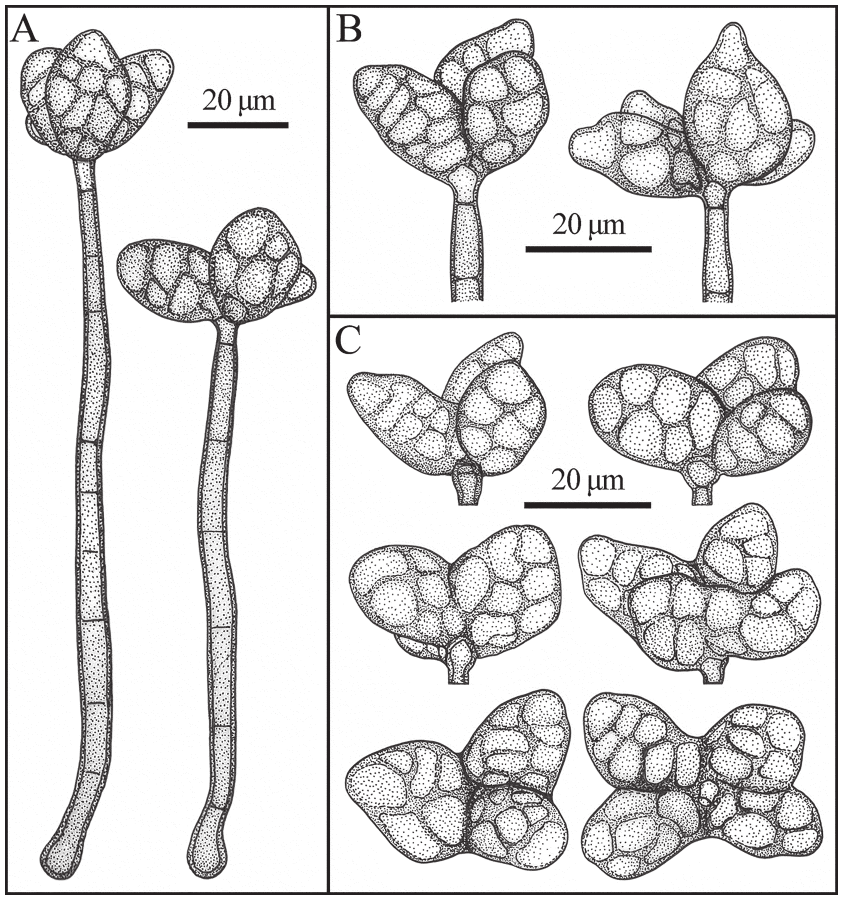

Fig. 2. *Dictyoceratosporella wuzhishanensis* (ex HSAUP H6660):
A. conidiophores, conidiogenous cells, and conidia;
B. conidiogenous cells and conidia; C. conidia.

conidium with 2 or more parallel or divergent arms. Ma et al. (2016) compared *Dictyoceratosporella* with *Actinocladium*, *Ceratosporella*, *Digitoramispora*, *Pseudoacrodictys* and *Triposporium*.

Dictyoceratosporella wuzhishanensis is similar to *D. cordata* in conidial shape. However, the conidia of *D. cordata* have 2(–3) longer, narrower lobes (22–40 × 7.5–15 μm; Ma et al. 2016).

Key to species of *Dictyoceratosporella*

1. Conidia cheiroid, 44–77 × 36–80 µm,
   with 2–5 navicular or fusiform dictyoseptate lobes . . . . . *D. limushanensis*
1. Conidia bifurcate to cordate 2
2. Conidia 18–44 × 19–36 µm, with an obconic basal cell and
   2(–3) semi-oval dictyoseptate lobes 22–40 × 7.5–15 µm . . . . . *D. cordata*
2. Conidia 25–35 × 25–40 µm, with a basal cell and
   2–4 semi-oval, dictyoseptate lobes 20–30 × 12–20 µm . . . . . *D. wuzhishanensis*

Acknowledgments

The authors express gratitude to Dr. Bryce Kendrick and Dr. Rafael F. Castañeda-Ruiz for serving as pre-submission reviewers and for their valuable comments and suggestions. This project was supported by the National Natural Science Foundation of China (Nos. 31093440, 31230001, 31493010, 31493011) and the Ministry of Science and Technology of the People's Republic of China (Nos. 2006FY120100).

Literature cited

Ma YR, Xia JW, Gao JM, Li Z, Zhang XG. 2016. *Dictyoceratosporella* gen. nov. with the description of two new species collected from Hainan, China. – Sydowia 68: 57–61. http://dx.doi.org/10.12905/0380.sydowia68-2016-0057